

**BOARD OF PATENT APPEALS AND INTERFERENCES  
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicants : Thomas Daley, *et. al.*  
Application No. : 10/766,965 Confirmation No. : 4387  
Filed : January 29, 2004  
For : SYSTEM AND METHOD FOR AVOIDING TRANSACTION COSTS  
ASSOCIATED WITH TRADING ORDERS  
Group Art Unit : 3696  
Examiner : Gerald Vizvary

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

**APPEAL BRIEF UNDER 37 C.F.R. § 41.37**

Sir:

This is an appeal from the decision of Examiner Gerald Vizvary, Group Art Unit 3696, in the Final Office Action of November 21, 2008 ("Final Action"), rejecting claims **12-15, 17, 18, 21, 22** and **34-49** in the present application. A Pre-Appeal Brief Conference Request and a Notice of Appeal were filed on May 21, 2009. A Notice of Panel Decision from Pre-Appeal Brief Review was mailed on July 2, 2009.

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**1. REAL PARTY IN INTEREST**

The real party in interest of the present application is BGC Partners, Inc., a corporation organized and existing under the laws of the State of Delaware, U.S.A., and having a place of business at 499 Park Avenue, New York, NY 10022.

**2. RELATED APPEALS AND INTERFERENCES**

The following pending appeals share the same specification, and therefore may be related to the present Appeal Brief:

- An Appeal Brief for Application No. 10/767,546 (Attorney Docket No. 04-6163), entitled “System and Method for Routing a Trading Order” was filed on June 29, 2009. There is currently no decision rendered by a court or the Board for this application. No Examiner’s answer has yet been filed in this application either.
- An Appeal Brief for Application No. 10/767,588 (Attorney Docket No. 04-6173), entitled “System and Method for Routing a Trading Order According to Price” was filed on July 23, 2009. There is currently no decision rendered by a court or the Board for this application. No Examiner’s answer has yet been filed in this application either.
- An Appeal Brief for Application No. 10/767,699 (Attorney Docket No. 04-6174), entitled “System and Method for Controlling the Disclosure of a Trading Order” was filed on August 27, 2009. There is currently no decision rendered by a court or the Board for this application. No Examiner’s answer has yet been filed in this application either.

**3.        STATUS OF CLAIMS**

The following claims are pending and stand rejected in the present application:

- Independent claims **12, 34 and 42.**
- Dependent claims **13-15, 17, 18, 21, 22, 35-41 and 43-49.**

All the pending claims are being appealed:

The following claims were previously cancelled:

- Claims **1-11, 16, 19, 20 and 23-33.**



**4.        STATUS OF AMENDMENTS**

An Amendment after Notice of Appeal was filed on October 2, 2009 to correct a typographical error in claim **39**. Claim **39** has been amended to reference method **18**, rather than method **15**. No decision on the entry of these amendments has been made.

## **5. SUMMARY OF CLAIMED SUBJECT MATTER**

The presently claimed invention(s) generally relate to systems for avoiding transaction costs associated with trading orders.

### **5.1. Independent Claim 12**

Independent claim 12 is directed to a method that comprises receiving information about a first order. See, e.g., Specification, p. 23, lines 1-7. The information includes at least one parameter of the first order; an identity of a market center to which the first order is to be routed; and an indication that the market center charges a transaction cost for orders that are processed after a length of time. See id. at p. 22, lines 24-28; p. 23, lines 1-7.

The method also comprises assigning a time threshold to the first order. See, e.g., id. at p. 23, line 22–p. 24, line 14. The time threshold comprises the length of time of the market center less a pre-determined amount of time. See, e.g., id.

In addition, the method comprises determining that the first order has not been processed before the time threshold. See, e.g., id. at p. 24, lines 15-19. The method also comprises transmitting an instruction to cancel the first order. See, e.g., id. The method further comprises generating a second order. See, e.g., p. 24, lines 19-22. The second order comprises the at least one parameter of the first order. See, e.g., id. The method comprises routing the second order to the market center. See, e.g., id. p. 24, line 19- p.25, line 5.

### **5.2. Independent Claim 34**

Independent claim 34 is directed to an apparatus that comprises a processor and a memory. See, e.g., id. at p. 3, line 8. The memory stores instructions which, when executed by the processor, direct the processor to perform the steps of receiving information about a first

order. See, e.g., Specification, p. 23, lines 1-7. The information includes at least one parameter of the first order; an identity of a market center to which the first order is to be routed; and an indication that the market center charges a transaction cost for orders that are processed after a length of time. See id. at p. 22, lines 24-28; p. 23, lines 1-7.

The memory also stores instructions which, when executed by the processor, direct the processor to perform the steps of assigning a time threshold to the first order. See, e.g., id. at p. 23, line 22–p. 24, line 14. The time threshold comprises the length of time of the market center less a pre-determined amount of time. See, e.g., id.

In addition, the memory also stores instructions which, when executed by the processor, direct the processor to perform the steps of determining that the first order has not been processed before the time threshold. See, e.g., id. at p. 24, lines 15-19. The memory also stores instructions which, when executed by the processor, direct the processor to perform the steps of transmitting an instruction to cancel the first order. See, e.g., id.

The memory also stores instructions which, when executed by the processor, direct the processor to perform the steps of generating a second order. See, e.g., p. 24, lines 19-22. The second order comprises the at least one parameter of the first order. See, e.g., id.

Furthermore, the memory also stores instructions which, when executed by the processor, direct the processor to perform the steps of routing the second order to the market center. See, e.g., id. p. 24, line 19- p.25, line 5.

### **5.3. Independent Claim 42**

Independent claim 42 is directed to an article of manufacture that comprises a storage medium and a processor. See, e.g., id. at p. 10, line 36 – p. 11, line 9. The storage medium stores instructions which, when executed by the processor, direct the processor to perform the

steps of receiving information about a first order. See, e.g., Specification, p. 23, lines 1-7. The information includes at least one parameter of the first order; an identity of a market center to which the first order is to be routed; and an indication that the market center charges a transaction cost for orders that are processed after a length of time. See id. at p. 22, lines 24-28; p. 23, lines 1-7.

The storage medium also stores instructions which, when executed by the processor, direct the processor to perform the steps of assigning a time threshold to the first order. See, e.g., id. at p. 23, line 22–p. 24, line 14. The time threshold comprises the length of time of the market center less a pre-determined amount of time. See, e.g., id.

In addition, the storage medium also stores instructions which, when executed by the processor, direct the processor to perform the steps of determining that the first order has not been processed before the time threshold. See, e.g., id. at p. 24, lines 15-19. The storage medium also stores instructions which, when executed by the processor, direct the processor to perform the steps of transmitting an instruction to cancel the first order. See, e.g., id.

The storage medium also stores instructions which, when executed by the processor, direct the processor to perform the steps of generating a second order. See, e.g., p. 24, lines 19-22. The second order comprises the at least one parameter of the first order. See, e.g., id.

Furthermore, the storage medium also stores instructions which, when executed by the processor, direct the processor to perform the steps of routing the second order to the market center. See, e.g., id. p. 24, line 19- p.25, line 5.

**6. GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

The grounds of rejection to be reviewed on appeal are whether:

- Independent claims **12, 34** and **42** and dependent claims **13-15, 17, 18, 21, 22, 35-41** and **43-49** are unpatentable under 35 U.S.C. §103(a) over U.S. Patent No. 6,014,643 (hereinafter “Minton”) in view of U.S. Patent No. 6,606,744 (hereinafter “Mikurak”).
- Independent claims **34** and **42** and dependent claims **35-41** and **43-49** fail to comply with 37 C.F.R. § 1.75(c) and 35 U.S.C. § 112, ¶ 4.
- Independent claims **12, 34** and **42** and dependent claims **15, 35-41** and **43-49** are indefinite under 35 U.S.C. § 112, paragraph 2 for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

## 7. **ARGUMENT**

### 7.1. **Summary of Argument**

#### 7.1.1. **Limitations Not Shown in the References**

There is no *prima facie* case of obviousness for claims **15, 17, 18, 37-39** and **45-47**, because the Examiner fails to show that the references teach all the limitations of the claims. The Examiner frequently adopts an interpretation of the terms that is at odds with their usage by the references and their ordinary meaning.

For example, claims **15** and **17** each recites a “*timer*” that measures when “*a length of time that the first order is active*” equals a “*time threshold*.” The Examiner alleges that Minton teaches this limitation, because the reference describes displaying a time stamp (i.e. “*time*” of when an order is executed). However, a time stamp only records a single instance in time, whereas a “*timer*” measures the “*length of time*”-- the two are not the same.

The Examiner also alleges that Mikurak teaches the above limitation by describing the recording of a telephone call in short time increments. But merely recording time increments neither teaches or suggests using a “*timer*” to measure when “*a length of time*” equals a “*time threshold*.”

#### 7.1.2. **No Motivation to Combine**

The Examiner fails to provide any motivation for combining or modifying the references in any of the claims. The Examiner merely argues that each claim element was independently known in the prior art, and that alone demonstrates that the combination of the elements would have been obvious. However, the Examiner fails to identify any actual *reason* as to why a

person of ordinary skill would have combined the elements in the same way that the claimed invention does.

The Examiner also fails to provide any evidence in the record for why one of ordinary skill would wish to selectively modify Minton with the features of Mikurak. The Examiner merely alleges, without any evidentiary support, that one of ordinary skill would have “recognized that the results of the combination were predictable.” *Id.* In other words, the Examiner suggests that one of ordinary skill, upon being told of the claimed invention, would have understood how it worked. Such an assertion is clearly not a motivation to combine or modify.

Even if the particular combination of references would have prompted a person of ordinary skill to combine, the record still lacks evidence that such a person would have modified Minton in the manner described by the Examiner. *Id.*

### **7.1.3. The Claims are not Improper Dependent Claims**

Although the Examiner objects to claims **34-49** under 37 C.F.R. § 1.75(c), in actuality, the Examiner is rejecting the claims as failing to meet the requirements of 35 U.S.C. § 112, ¶4.

As initial matter, the Examiner already fails to make a *prima facie* case of failure to comply with § 112, ¶ 4, because he provides no explanation whatsoever as to why he considers claims **34-49** to be non-compliant.

Lacking any explanation, Applicants are forced to presume that the sole reason for rejecting claims **34-49** is because the claims refer to a preceding method claim. This rejection is improper because the Examiner mischaracterizes claims **34** and **42** as dependent claims. In

actuality, claims **34** and **42** are independent claims written in simplified form by *referring* to method claim **12** – rather than explicitly *repeating* all the recitations of claim **12** – for the convenience of the Examiner and the public.

Referring to another claim does not, by itself, render a claim dependent. For example, an independent product-by-process claim is a claim for a product, but contains a reference to a method.

#### **7.1.4. The Claims are not Indefinite**

Dependent claims **12** and **15** were rejected under 35 U.S.C. § 112, ¶ 2 as indefinite for using a purportedly relative term: “*a length of time.*” Final Action, p. 2.

However, the specification expressly defines “*a length of time*” as a pre-determined amount of time in which a market center will process a trading order before charging a transaction cost. *See, e.g., Specification, para. 70.* Furthermore, the language of claim **15** clearly recites that the term “*the length of time,*” as used in that claim, is the amount of time in which “*the first order is active within the market center.*”

Claims **34-49** were rejected as being indefinite. However, the Examiner provides no explanation whatsoever explaining his basis for considering these claims to be indefinite. Thus, the Examiner fails to meet his burden of making a *prima facie* case of indefiniteness for claims **34-49**.

Applicants are forced to presume that the sole reason for rejecting claims **34-49** is because the claims refer to a preceding method claim. Such a rejection is improper. Claims **34-49** are written in simplified form by *referring* to a method claim—a claim format that is proper,



as mentioned immediately above in subsection 7.1.3, and as discussed in greater detail below in subsections 7.6.2, 7.6.3 and 7.6.4.

## **7.2. First Group: Independent Claim 12**

The Examiner rejects independent claim **12** under 35 U.S.C. § 103(a) as being unpatentable over Minton in view of Mikurak. Final Action, pp. 3-6.

The Examiner also rejects claim **12** under 35 U.S.C. § 112, paragraph 2 as indefinite for allegedly using “a relative term.” Final Action, p. 2.

### **7.2.1. Legal Standard for Obviousness**

The initial burden of presenting a *prima facie* case of obviousness is upon the Examiner. In re Oetiker, 977 F.2d 1443, 1445 (Fed. Cir. 1992). To reject claims under 35 U.S.C. § 103, an Examiner must show an un rebutted *prima facie* case of obviousness. In re Rouffet, 149 F.3d 1350, 1355 (Fed. Cir. 1998). To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981 (CCPA 1974). If the Examiner fails to establish a *prima facie* case of obviousness, the rejection is improper and will be overturned. In re Rijckaert, 9 F.3d 1531, 1532 (Fed. Cir. 1993); Novamedix Distrib. Ltd. v. Dickinson, 175 F.Supp. 2d 8, 9 (D.D.C. 2001). If examination at the initial stage does not produce a *prima facie* case of unpatentability, then without more, the Applicants are entitled to grant of the patent. In re Oetiker, 977 F.2d 1443, 1445 (Fed. Cir. 1992).

In addition, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify a reference.

*Graham v. Deere*, as well as all subsequent case law, requires that there be motivation. Graham v. John Deere Co., 383 U.S. 1 (1966). This motivation is not exempt from the requirement of *Lee* and *Zurko* that all factual findings be supported by substantial evidence in the record. In re Lee, 277 F.3d 1338, 1342 (Fed. Cir. 2002); In re Zurko, 258 F.3d 1379, 1383-1386 (Fed. Cir. 2001). Thus, the Examiner must support all factual finding of a suggestion or motivation to modify a reference with substantial evidence of record. Novamedix Distrib. at 9; Zurko at 1383-1386; Lee at 1342.

Although the particular teachings, suggestions, or motivations need not always be written references, the obviousness test must proceed on the basis of *some* substantial evidence of record. See Ortho-McNeil Pharmaceutical v. Mylan Labs, 520 F.3d 1358, 1365 (Fed. Cir. 2008).

An obviousness analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, however, the rejection of a patent on obviousness grounds cannot be sustained by mere conclusory statements. KSR Int'l Co. v. Teleflex, Inc., 127 S.Ct. 1727, 1741 (2007). There must be some articulated reasoning with some rational underpinning to support a legal conclusion of obviousness. *Id.* A patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. *Id.* at 1741. It is important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed invention does, since all claimed discoveries of necessity will be combinations of what, in some sense, is

already known. *Id.* A factfinder must be aware of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning. *Id.* at 1742.

### **7.2.2. Rejection Under 35 U.S.C. § 103(a)**

#### ***7.2.2.1. No evidence supporting a motivation to modify Minton with Mikurak.***

The Examiner concedes that Minton fails to disclose the following limitation of claim **12**:

... receiving information about a first order, in which the information includes... *an indication that the market center charges a transaction cost for orders that are processed after a length of time;*  
determining that the first order has not been processed before the time threshold;  
routing the second order to the market center.

(emphasis added). However, the Examiner asserts that a person of skilled in the art would have known and desired to modify Minton to include the features of Mikurak in a manner that yields the claimed invention for the following reason:

It would have been obvious to one skilled in the art at the time of the invention to include a timer, a transaction cost indicator and routing [sic] the order as taught by *Mikurak* US 6,606,744 B1 in the system of *Minton* US 6,014,643, since the claimed invention is merely a *combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.*

Final Action, p. 6 (emphasis added).

In other words, the Examiner argues that because each of the elements of claim **12** was, independently, known in the prior art, that alone means the combination of the elements would

have been obvious. However, the Examiner fails to identify any actual *reason* as to why a person of ordinary skill would have combined the elements in the same way that the claimed invention does.

Furthermore, all factual findings of the Patent and Trademark Office must be supported by substantial evidence. Since motivation to modify is a factual finding, it must be supported by some evidence.

The Examiner also fails to provide any motivation for why one of ordinary skill in the art would have, at the time of the invention, known or desired to “include a timer, a transaction cost indicator and routing [sic] the order” in Minton. Final Action, p. 6. The Examiner merely alleges, without any evidentiary support, that a person of ordinary skill would have “recognized that the results of the combination were predictable.” *Id.* In other words, the Examiner suggests that one of ordinary skill, upon being told of the claimed invention, would have understood how it worked. Such an assertion is clearly not a motivation to combine or modify the references.

Furthermore, even if a person of ordinary skill would have recognized “the results of the combination [to be] predictable,” there is still no evidence that such a person would have been motivated to modify Minton by including “a timer, a transaction cost indicator and routing [sic] the order.” *Id.* The Examiner provides no reasoning as to why the latter would follow from the former, and the two would only appear disconnected and unrelated to a person of ordinary skill.

Since there has been no evidence offered, and no reasoning based on evidence, for a motivation to combine or modify the references in the manner the Examiner has proposed, Applicants cannot address the reasoning behind the obviousness rejection, and a *prima facie* showing of obviousness has not been made.

Thus, the Examiner's failure to provide any evidence supporting a motivation for modifying Minton with Mikurak results in a failure to establish a *prima facie* case of obviousness for claim 12.

### 7.2.3. Legal Standard for Indefiniteness

Under 35 U.S.C. § 112, ¶ 2, the definiteness inquiry focuses on whether those skilled in the art would understand the scope of the claim when the claim is read in light of the rest of the specification. *See, e.g., Kinetic Concepts, Inc. v. Blue Sky Med. Group, Inc.*, 554 F.3d 1010, 1022 (Fed. Cir. Feb. 2, 2009); AllVoice Computing PLC v. Nuance Communs., Inc., 504 F.3d 1236, 1240 (Fed. Cir. 2007).

If the claims when read in light of the specification reasonably apprise those skilled in the art of the scope of the invention, then section 112 demands no more. *See Pharmastem Therapeutics, Inc. v. Viacell, Inc.*, 491 F.3d 1342, 1373 (Fed. Cir. 2007) (quoting *Miles Laboratories, Inc. v. Shandon*, 997 F.2d 870, 875 (Fed. Cir. 1993)); Marley Mouldings, Ltd. v. Mikron Indus., 417 F.3d 1356, 1359 (Fed. Cir. 2005).

Under PTO policy, examiners are required to give Applicants a great deal of latitude in how they choose to define their invention, so long as the terms and phrases define the invention with a reasonable degree of clarity and precision. *See MPEP § 2173.05(e).*

The breadth of a claim has no bearing whatsoever on the definiteness of a claim. *In re Gardner*, 427 F.2d 786 (1970) ("Breadth is not indefiniteness."); *In re Miller*, 441 F.2d 689, 693 (CCPA 1971) ("breadth is not to be equated with indefiniteness, as we have said many times"); *In re Robins*, 429 F.2d 452, 458 (CCPA 1970).

**7.2.4. Rejection Under 35 U.S.C. § 112, paragraph 2****7.2.4.1. Claim 12 is not indefinite, because “a length of time” is defined in the specification.****SEPARATE ARGUMENT OF PATENTABILITY**

Claim 12 recites, *inter alia*,

... receiving information about a first order, in which the information includes... an indication that the market center charges a transaction cost for orders that are processed after a length of time;

assigning a time threshold to the first order, in which the time threshold comprises the length of time of the market center less a pre-determined amount of time...

(emphasis added). The Examiner rejects claim 12 on the grounds that the term “a length of time” is indefinite. Final Action, p. 2. Specifically, the Examiner alleges the following:

The term “a length of time” is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

The Examiner is mistaken. Beyond providing a standard for ascertaining requisite degree, the specification expressly defines “a length of time” in this claim as a pre-determined amount of time in which a market center will process a trading order before charging a transaction cost. *See, e.g., Specification, para. 70.* For example, paragraph 70 of the specification clearly states the following:

Time threshold 34 specifies *a length of time that is a predetermined amount of time*, also referred to as buffer time, less than the *length of time a particular market center 18 will process a trading order 20 before charging a transaction cost*. For example, if a market center 18 charges a transaction cost for maintaining a trading order 20 active in its order book beyond five minutes, then

cost avoidance module 40 may determine a timeout when the trading order 20 has been active for four minutes and fifty seconds.

*Id.* (emphasis added).

The remainder of the specification reinforces this meaning. When read in light of the specification, claim **12** reasonably apprises those skilled in the art of the scope of the invention, and as such, the Examiner fails to establish a *prima facie* case of indefiniteness for claim **12**. For at least this reason, claim **12** is definite and allowable.

### **7.3. Second Group: Dependent Claim 15**

The Examiner rejects claim **15** under 35 U.S.C. § 103(a) as being unpatentable over Minton in view of Mikurak. Final Action, pp. 7-8.

The Examiner also rejects claim **15** under 35 U.S.C. § 112, paragraph 2 as indefinite for allegedly using “a relative term.” Final Action, p. 2.

#### **7.3.1. Rejection Under 35 U.S.C. § 103(a)**

##### ***7.3.1.1. References do not teach all the limitations of the claim.***

#### **SEPARATE ARGUMENT OF PATENTABILITY**

Neither Minton nor Mikurak, alone or in combination, disclose or suggest the following limitation of claim **15**:

, in which the act of monitoring comprises:  
using a *timer* to *measure a length of time that the first order is active within the market center*; and

receiving an indication that *the length of time* that the first order is active within the market center *equals the time threshold*.

(emphasis added). The “*timer*” of claim **15** measures the total length of time that an order is active in a market center. This total length of time is used to determine whether a “*time threshold*” for canceling the order has been triggered. See, e.g., Specification, p. 23, line 19-p. 24, line 2.

The Examiner concedes that Minton fails to teach the limitations of claim **15**. But he alleges that column 49, ll. 14-22 of Mikurak does. In actuality, the cited portions of Mikurak, in their entirety, merely state the following:

Contemporary fixed length record formats include *time point fields recording local time in three (3) second increments* where local switch time represents the time of day at a switch. The timepoint fields are used by the network switches, billing center, and other network subsystems. Each subsystem, however, may require the time period for a different use and in a different format, such as in an epoch time format. [col. 49, ll. 14-22]

At best, the cited-portions of Mikurak disclose sampling the length of a telephone call via recording short increments of time. Since the Examiner provides no explanation as to why he considers the cited portions of Mikurak to teach claim **15**, Applicants are forced to presume that the Examiner interprets the recording of time increments as a “*timer*” that measures in three second time intervals. Even if this is the case, there is no teaching or suggestion of a “*time threshold*” against which the three second time interval can be compared.

The “*timer*” and the “*time threshold*” of claim 15 are two separate elements – the two cannot be the same element, otherwise, it eviscerates the act of comparing the measured “*length*



of time” against the “*time threshold*.” By contrast, Mikurak merely discloses a single element “a three second increment.” There is no teaching or suggestion whatsoever in the cited portions of Mikurak of a “*time threshold*.”

The Examiner also fails to provide any arguments or evidence supporting a rationale for why recording increments of time would teach or suggest measuring “*the length of time that the first order is active within the market center*,” as recited by claim **15**.

The Examiner also cites column 45, ll. 44-54 of Mikurak, which states:

The Customer Quality of Service Management Process 1302 ***encompasses monitoring, managing and reporting of quality of service*** as defined in Service Descriptions, Service Level Agreements (SLA), and other service-related documents. It includes network performance, but also performance across all of service parameters, e.g., Orders Completed On Time. Outputs of this process are standard (predefined) and exception reports, including; dashboards, performance of a service against an SLA, reports of any developing capacity problems, reports of customer usage patterns, etc. [col. 45, ll. 44-54]

Mikurak, col. 45, ll. 44-54 (emphasis added).

It is unclear the Examiner’s reasons for citing this portion of Mikurak, since no explanation is provided. Applicants are forced to presume that the Examiner intends to equate Mikurak’s “*monitoring of a quality of service*” with “*monitoring a status of the first order*,” as recited by claim **14** (from which claim **15** depends). But the Examiner is mistaken-- the two are not the same.

At best, the cited-portion of Mikurak describes monitoring the network’s quality of service. This monitoring service, as described in later section of Mikurak, is used to determine:

Whether service levels are being met consistently  
Whether there are any general problems with the service or product  
Whether the sale and use of the service is tracking to forecasts.

Mikurak, col. 46, ll. 22-28.

Nowhere do the cited-portions of Mikurak teach or suggest “*monitoring a status of the first order*.” The monitoring service in Mikurak is concerned with quality (i.e., whether a level of service is met), whereas the act of “*monitoring a status of the first order*” is concern with occurrence (i.e., whether an order has been processed by a market center). The Examiner fails to provide any arguments or evidence supporting a rationale for why monitoring the quality of a network’s performance would teach or suggest monitoring whether a trading order has been processed by a market center.

Because the Examiner fails to show that all the limitations of claim **15** are taught or suggested by Minton and Mikurak, he does not establish a *prima facie* case of obviousness

***7.3.1.2. No evidence supporting a motivation to modify Minton with Mikurak.***

**SEPARATE ARGUMENT OF PATENTABILITY**

The Examiner concedes that that Minton fails to disclose the following limitation of claim **15**:

... using a timer to measure a length of time that the first order is active within the market center; and  
receiving an indication that the length of time that the first order is active within the market center equals the time threshold.

However, the Examiner asserts that a person of skilled in the art would have known and desired to modify Minton to include the features of Mikurak in order to perform the claimed invention for the following reason:

It would have been obvious to one skilled in the art at the time of the invention to include a timer indicating the length of a transaction as taught by *Mikurak* US 6,606,744 B1 in the system of *Minton* US 6,014,643, since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Final Action, pp. 8-9 (emphasis added).

As discussed under subsection 7.2.2, the Examiner merely argues that because each of the elements of claim **15** was, independently, known in the prior art, then that alone demonstrates that the combination of the elements would have been obvious. However, the Examiner fails to identify any actual *reason* as to why a person of ordinary skill would have combined the elements in the way the claimed invention does.

The Examiner also fails to provide any motivation for why one of ordinary skill in the art would have, at the time of the invention, known or desired to “include a timer indicating the length of a transaction” in Minton. *Id.* The Examiner merely alleges, without any evidentiary support, that a person of ordinary skill would have “recognized that the results of the combination were predictable.” Final Action, pp. 8-9. Without any evidence of such an assertion, which Applicants dispute, this assertion does not constitute substantial evidence upon which any rejection can be based.

Furthermore, even if a person of ordinary skill would have, if presented with the particular combination of references, understood how that combination would have functioned, there is still no evidence that such a person would have been motivated to modify Minton by including “a timer indicating the length of a transaction.” *Id.* The Examiner provides no

reasoning why the latter would follow from the former, and the two would only appear disconnected and unrelated to a person of ordinary skill.

A patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. KSR Int'l Co. v. Teleflex, Inc., 127 S.Ct. 1727, 1741. ) The Examiner must provide evidence supporting a motivation to combine the elements in the way the claimed invention does. *Id*

Since there has been no evidence offered, and no reasoning based on evidence, for a motivation to combine or modify the references in the manner the Examiner has proposed, Applicants cannot address the reasoning behind the obviousness rejection, and a *prima facie* showing of obviousness has not been made.

Thus, the Examiner's failure to provide any evidence supporting a motivation for modifying Minton with Mikurak results in a failure to establish a *prima facie* case of obviousness for claim **15**.

### **7.3.2. Rejection Under 35 U.S.C. § 112, ¶ 2**

**7.3.2.1. Claim 15 is not indefinite, because "a length of time" is defined in the claim language.**

#### **SEPARATE ARGUMENT OF PATENTABILITY**

Claim **15** recites, *inter alia*,

... using a timer to measure a length of time that the first order is active within the market center; and  
receiving an indication that the length of time that the first order is active within the market center equals the time threshold.

(emphasis added).

The Examiner rejects claim **15** using the same arguments that he asserted for rejecting claim 12, as detailed above in subsection **7.2.4.1**. However, the Examiner is mistaken. In fact, the Examiner does not even need to look to the specification, since the language of claim **15** clearly defines “a length of time” as the amount of time in which “the first order is active within the market center.”

The MPEP requires that examiners give Applicants a great deal of latitude in how they choose to define their invention, so long as the terms and phrases that are used define the invention with a reasonable degree of clarity and precision. See MPEP § 2173.05(e).

Since the language of claim **15** clearly defines “a length of time” with “a reasonable degree of clarity and precision,” the Examiner’s rejection of claim **15** fails to establish a *prima facie* case of indefiniteness. For at least this reason, claim **15** is allowable.

#### **7.4. Third Group: Dependent Claim 17**

##### **7.4.1. Rejection Under 35 U.S.C. § 103(a)**

##### ***7.4.1.1. References fail to teach all the limitations of the claim.***

##### **SEPARATE ARGUMENT OF PATENTABILITY**

Claim **17** recites a “*timer [that] begins measuring as soon as the first order is routed to the market center.*” Claim **17** depends from claim **15**, and as such, the timer of claim **17** is measuring “*the length of time that the first order is active within the market center.*”

The Examiner alleges that col. 10, ll. 12-14 of Minton teaches the limitation of claim **17**. But in actuality, col.10, lines 12-14 of Minton merely state the following:

Sales data window 430 displays the time, the size, and the price of all orders that have been executed on the individual securities trading network.

Minton, col. 10, ll. 12-14.

At best, the cited portion of Minton discloses a time stamp (i.e., “time” of when an order is executed). *Id.* Nowhere does the cited-portion of Minton teach or suggest a “*timer*” that measures a “*length of time*,” in which the “*the first order is active within the market center*,” as recited by claim 17.

The Examiner fails to provide any arguments or evidence supporting a rationale for why a time stamp would teach or suggest a “*timer*.” A time stamp only records a second instance in time, whereas a “*timer*” measures the “*length of time*” – the two are not the same.

Because the Examiner fails to show all the limitations of claim 17 are taught or suggested by Minton and Mikurak, he does not establish a *prima facie* case of obviousness.

## **7.5. Fourth Group: Dependent Claim 18**

### **7.5.1. Rejection Under 35 U.S.C. § 103(a)**

#### ***7.5.1.1. References do not teach all the limitations of the claim.***

#### **SEPARATE ARGUMENT OF PATENTABILITY**

Claim 18 recites that “*the act of monitoring is performed by a timer.*” Claim 18 depends from claim 14, and as such, the timer of claim 18 is used to monitor “*the status of the first order to determine whether the first order has been processed by the market center.*”

The Examiner alleges that the same cited-portion of Minton, which he used to reject claim 17, also teaches the limitation of claim 18.

However, as discussed above in subsection **7.4.1.1** for claim 17, col. 10, ll. 12-14 of Minton merely discloses a time stamp of when an order is executed. Nowhere does the cited-

portion of Minton teach or suggest a “*timer*” that is used to monitor “*the status of the first order to determine whether the first order has been processed by the market center,*” as recited by claim **18**. A time stamp only records a second instance in time, whereas a “*timer*” measures the “*length of time*” – the two are not the same.

Because the Examiner fails to show all the limitations of claim **18** are taught or suggested by Minton and Mikurak, he does not establish a *prima facie* case of obviousness.

#### **7.6. Fifth Group: Claims 34-36, 40-44, 48 and 49**

The Examiner rejects claims **34-36, 40-44, 48 and 49** under 35 U.S.C. § 103(a) as being unpatentable over Minton in view of Mikurak. Final Action, pp. 3-6.

The Examiner objects to claims **34-36, 40-44, 48 and 49** under 37 C.F.R. § 1.75(c) as being of improper dependent form “for failing to further limit the subject matter of a previous claim.” Final Action, p. 2.

In actuality, the Examiner has rejected claims **34-36, 40-44, 48 and 49** for violating the requirements of 35 U.S.C. § 112, ¶ 4, which requires that a dependent claim specify a further limitation of the subject matter of a previous claim. As described immediately below in subsection **7.6.2** below, the rejection of these claims on this basis is properly subject to appeal in this brief and within the jurisdiction of the Board.

The Examiner also rejects claims **34-36, 40-44, 48 and 49** under 35 U.S.C. § 112, paragraph 2, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Final Action, p. 3.

**7.6.1. Rejection Under 35 U.S.C. § 103(a)*****7.6.1.1. No evidence supporting a motivation to modify Minton with Mikurak.*****SEPARATE ARGUMENT OF PATENTABILITY**

Claims **34** and **42** recite, respectively, an apparatus and an article of manufacture that perform, *inter alia*, the following steps:

... receiving information about a first order, in which the information includes... an indication that the *market center charges a transaction cost for orders that are processed after a length of time*;  
determining that the first order has not been processed before the time threshold;  
routing the second order to the market center.

Since claims **34** and **42** contain the same limitation as that argued under subsection **7.2.2** for claim **12**, the claims are allowable for the same reasons stated under subsection **7.2.2**. Specifically, the Examiner admits that this limitation is not disclosed by the references of record, and the Examiner fails to provide any evidence supporting a motivation for modifying Minton with Mikurak. Thus, there is no *prima facie* case of obviousness for claims **34** and **42**.

Neither is there any *prima facie* case of obviousness for claims **35, 36, 38-41, 43, 44** and **46-49**, which depend from claims **34** and **42**.

**7.6.2. Legal Standards Involving 35 U.S.C. § 112, ¶ 4*****7.6.2.1. Legal Standard for Jurisdiction***

In determining whether a particular action by the Examiner is appealable to the Board of Patent Appeals and Interferences, one must look to the language employed by the agency in



taking the action, as well as the effect thereof, and consider “both form and substance”. *In re Haas*, 486 F.2d 1053, 1055 (C.C.P.A. 1973).

The kind of “adverse decisions” which are reviewable by the Board must be those which relate, at least indirectly, to matters involving the rejection of claims. *In re Hengehold*, 440 F.2d 1395, 1404 (C.C.P.A. 1971).

Where the Examiner’s actions are tantamount to a rejection, the mere fact that the rejection is called an objection is not dispositive. See *Haas* at 1056. If an Examiner’s actions meet the standard established in *Hengehold* for “adverse decisions,” then those actions are reviewable by the Board. *Id.*

If the differences of opinion concerning the denial of patent claims are because of prior art or other patentability issues, then the questions thereby raised are said to “relate to the merits.” In such instances, appeal procedures within the Office and to the courts have long been provided. MPEP § 1201. Patent applications are examined for compliance with the statutory provisions of Title 35, United States Code, as set forth in sections 100, 101, 102, 103 and 112. These are considered to be examinations on “the merits.” *In re Harnisch*, 631 F.2d 716, 720 (C.C.P.A. 1980). Thus a rejection under 35 U.S.C. § 112 is within the jurisdiction of the Board.

**7.6.2.2. Legal Standard for Failure to Comply with 35 U.S.C. § 112, ¶4**

According to 35 U.S.C. § 112, ¶4:

[A] claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed. *A claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers.*

(emphasis added).

The language of 37 C.F.R. 1.75(c) is clearly derived wholesale from the statute. The rule states, in part, that:

One or more claims may be presented in dependent form, referring back to and further limiting another claim or claims in the same application... Claims in dependent form shall be construed to include all the limitations of the claim incorporated by reference into the dependent claim.

(emphasis added).

Thus, 37 C.F.R. 1.75(c) is merely a copy of the statute and (at least with respect to the present rejection) does not provide any additional duties or requirements on the Applicant beyond those duties imposed by the statute. Hence, a violation of 37 C.F.R. 1.75(c) (the rule that the Examiner alleges) is completely equivalent to an allegation of a violation of 35 U.S.C. § 112, ¶ 4.

A claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed. 35 U.S.C. § 112, ¶ 4. Similarly, as stated in under 37 C.F.R. § 1.75(c), “[o]ne or more claims may be presented in dependent form, referring back to and further limiting another claim or claims in the same application.” In other words, merely referring to a previous claim is not sufficient of make a claim dependent.

Referring to a preceding claim in order to define a limitation is an acceptable claim form that should not necessarily be rejected as improper or confusing. Ex parte Porter, 25 USPQ2d 1144 (Bd. Pat. App. & Inter. 1992). As stated in MPEP 2173.05(p)(I), “[a] claim to a device, apparatus, manufacture, or composition of matter may contain a reference to the process in

which it is intended to be used without being objectionable, so long as it is clear that the claim is directed to the product and not the process.” See *In re Luck*, 476 F.2d 650, 177 USPQ 523 (CCPA 1973); *Scripps*, 927 F.2d at 1583; and *Microprocessor Enhancement*, 520 F.3d at 1375. Such claims are not dependent on the claim they refer to. For example, such claims are not necessarily infringed if the claim they refer to is infringed.

**7.6.2.3. *Jurisdiction Over 37 C.F.R. § 1.75(c) is Proper Since Objection Has Form and Substance of a Rejection.***

As discussed under subsection **7.6.2.1**, an adverse decision by the Examiner under 37 C.F.R. 1.75(c) is tantamount to a rejection under 35 U.S.C. § 112, ¶ 4, since the Examiner’s actions take the “form and substance” of a rejection under that portion of the patentability statute. See *In re Haas*, 486 F.2d 1053, 1055 (C.C.P.A. 1973).

A rejection that is couched in the terms of an objection, but remains a rejection in “form and substance,” is still considered a rejection and confers jurisdiction on the Board. See *Haas* at 1055. The mere fact that the rejection is called an “objection” is not dispositive. *Id.* at 1056.

Where an Examiner objects to a claim under 37 C.F.R. § 1.75(c), as being of improper dependent form “for failing to further limit the subject matter of a previous claim,” the Examiner is, in actuality, rejecting the claim for violating the requirement of 35 U.S.C. § 112, ¶ 4, which requires that a dependent claim specify a further limitation of the subject matter of a previous claim.

As discussed under subsection **7.6.2.2**, the language of the rule clearly mirrors the language of the statute, and the rule imposes no extra obligations beyond the statute that is alleged to have been violated. Clearly, the existence of a rule mirroring the statutory provision does not usurp the Board’s jurisdiction over that statutory provision. If it did, then virtually all

statutory provisions would be overridden in such a manner-- this would violate 35 U.S.C. § 6 and 35 U.S.C. § 134. Therefore, in such an instance, rejection of the claim on this basis is properly subject to appeal and within the jurisdiction of the Board.

### **7.6.3. Rejection Under 35 U.S.C. § 112, ¶ 4**

#### ***7.6.3.1. Referring to another claim does not, by itself, render a claim dependent.***

#### **SEPARATE ARGUMENT OF PATENTABILITY**

The Examiner provides no explanation whatsoever explaining his basis for considering independent claims **34** and **42** (and dependent claims **35, 36, 38-41, 43, 44** and **46-49**) to be in non-compliance with 35 U.S.C. § 112, ¶ 4. As such, the Examiner already fails to meet his burden of making a *prima facie* case for failure to comply with Section 112, paragraph 4.

Applicants are forced to presume that the sole reason for rejecting claims **34** and **42** (and dependent claims **35, 36, 38-41, 43, 44** and **46-49**) is because the claims refer to a preceding method claim. Final Action, p. 2.

The rejection of claims **34** and **42** (and dependent claims **35, 36, 38-41, 43, 44** and **46-49**) is improper because the Examiner mischaracterizes claims **34** and **42** as dependent claims. On the contrary, independent claims **34** and **42** are written as claims that refer to a preceding claim (i.e., they refer to method claim **12**). This is an acceptable claim construction that is proper.

For example, claim **34** begins by reciting “an apparatus” and contains a clear reference to only the claimed “apparatus,” so there is no possible confusion that claim **34** might be a method claim or anything other than an apparatus claim. Furthermore, claim **34** recites two structural

limitations of the apparatus: a processor and a memory. The memory stores instructions that, when executed by the processor, direct the processor to perform the method of claim **12**.

Likewise, claim **42** begins by reciting “an article of manufacture” and contains a clear reference to only the claimed “article of manufacture,” so there is no possible confusion that claim **42** might be a method claim or anything other than an article of manufacture claim. Furthermore, claim **42** recites a structural limitation of the article of manufacture: a storage medium. The storage medium stores instructions that, when executed by the processor, direct the processor to perform the method of claim **12**.

A product claim may refer to a method claim and still be an independent claim. The Examiner’s rejection is based on an erroneous legal standard that referring to another claim, by itself, renders a claim dependent. This presumption is unambiguously contrary to 35 U.S.C. § 112, ¶ 4, as discussed above, and any rejection based on such an erroneous presumption clearly violates the statute.

In particular, the statute sets forth two requirements to establish whether one claim is dependent upon another: (1) if the new claim refers to an earlier claim and (2) if the new claim further limits that referent. Monsanto Co. v. Syngenta Seeds, Inc., 503 F.3d 1352, 1357-58 (Fed. Cir. 2007)(citing 35 U.S.C.S. § 112, paragraph 4). The Examiner’s assertion that a claim containing a reference to a previous claim must be dependent eviscerates the second requirement of Section 112, paragraph 4.

Many judicial decisions demonstrate the principle that a product claim may refer to a method claim without being dependent on that claim. For example, an independent product-by-

process claim is a claim for a product, but contains a reference to a method. *See, e.g., Scripps*, 927 F.2d at 1570. This type of claim is proper.

A product-by-process claim is not dependent on the method claim since it does not “further limit” the method claim. *Id.* at 1583. Moreover, a product-by-process claim may be infringed (e.g., by selling the product produced by another party when it is not currently executing the method) without infringing the method claim to which it refers. For example, suppose a person (Party A) makes the product of a product-by-process claim, using the method of the referenced claim. In this instance, Party A is infringing the product-by-process claim and the method claim. Now suppose that Party A gives the product to another person (Party B), and Party B then sells that product to a third party. Party B would infringe the product-by-process claim only. Party B has not infringed the referenced method claim, since Party B never practiced or used that method. This example highlights the fact that a typical product-by-process claim cannot be considered to be dependent on the referenced method claim, since infringement of a dependent claim necessarily requires infringement of the claim from which it depends. *See Monsanto* at 1357 (holding that one may infringe an independent claim, but not infringe a claim dependent on that claim. However, the reverse is never true.)

The language of claims **34** and **42** makes it clear that the claims recite, respectively, an apparatus and an article of manufacture. Claims **34** and **42** can be infringed (e.g., by selling the apparatus or article of manufacture, without “running” or executing the instructions, to another party) without infringing the method claim to which it refers. Final Action, p. 2. Thus, claims **34** and **42** are by definition not dependent claims. They are, in fact, proper independent claims, and as such, the infringement test—a test as to whether a claim is a proper *dependent* claim-- is

entirely inapplicable. *See, e.g. Monsanto* at 1357 (describing the infringement test); *See also* MPEP § 608.01(n)III).

Furthermore, Applicants have paid the appropriate independent claim fee for the examination of claims **34** and **42** as independent claims. The claims have been written in simplified form by *referring* to claim **12** – rather than explicitly *repeating* all the recitations of claim **12** – for the convenience of the Examiner and the public. If the recitations of claim **12** were copied into claims **34** and **42**, during prosecution the Examiner would need to carefully review the amendments to the method language in each of claims **12**, **34** and **42** in order to verify consistency or identify differences. Interested members of the public would incur higher costs to determine the scope and meaning of each claim. The differences also could potentially lead to increased time and cost in a patent litigation to address differences in claim scope, prosecution history estoppel, the applicability of the doctrine of equivalents, support in the specification, etc.

The Examiner provides no other reason for this rejection other than the fact that the claims merely reference another claim in a different statutory class. Because the Examiner mischaracterizes independent claims **34** and **42** as being written in improper dependent form, when in actuality, the claims are *independent* claims, the Examiner fails to establish a *prima facie* case of failure to comply with 35 U.S.C. § 112, ¶ 4 or 37 C.F.R. § 1.75(c) for these claims.

Neither is there any *prima facie* case of failure to comply with 35 U.S.C. § 112, ¶ 4 for claims **35**, **36**, **38-41**, **43**, **44** and **46-49**, which depend from claims **34** and **42**.

#### **7.6.4. Rejection Under 35 U.S.C. § 112, ¶ 2**

***7.6.4.1. Referring to another claim does not, by itself, render a claim indefinite.***

## SEPARATE ARGUMENT OF PATENTABILITY

Independent claims **34** and **42** (and dependent claims **35, 36, 38-41, 43, 44** and **46-49**) were rejected under 35 U.S.C. § 112, ¶ 2 as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. Final Action, p. 3. The Examiner provides no explanation, whatsoever, explaining his basis for considering these claims to be indefinite. As such, the Examiner already fails to meet his burden of making a *prima facie* case of indefiniteness for these claims.

Applicants are forced to presume that the Examiner's basis for rejecting claims **34** and **42** (and dependent claims **35, 36, 38-41, 43, 44** and **46-49**) is based on the sole reason that the claims refer to a preceding method claim.

Claims **34** and **42** (and dependent claims **35, 36, 38-41, 43, 44** and **46-49**) are written in simplified form by *referring* to a method claim – rather than explicitly *repeating* all the recitations of the method claim. As discussed under subsection 7.6.3, this simplified claim format is written solely for the convenience of the Examiner and the public.

For example, claim **34** begins by reciting “an apparatus” and contains a clear reference to only the claimed “apparatus,” so there is no confusion that it might be a method claim or anything other than an apparatus claim. Likewise, claim **42** begins by reciting “an article of manufacture” and contains a clear reference to only the claimed “article of manufacture,” so there is no confusion that it might be a method claim or anything other than an article of manufacture claim. There is likewise no other reason (nor has one been stated) why the claims, when read in light of the specification, would not reasonably apprise those skilled in the art of the scope of the invention.



Since referring to another claim in another statutory class does not, by itself, render a claim indefinite, and the Examiner provides no other explanation for the indefiniteness rejection, the Examiner fails to establish a *prima facie* case of indefiniteness for claims **34** and **42** (and claims **35**, **36**, **38-41**, **43**, **44** and **46-49** which depend therefrom).

#### **7.7. Sixth Group: Dependent Claims 37 and 45**

The Examiner rejects claims **37** and **45** under 35 U.S.C. § 103(a) as being unpatentable over Minton in view of Mikurak. Final Action, pp. 7-8; 12.

The Examiner objects to claims **37** and **45** under 37 C.F.R. § 1.75(c) as being of improper dependent form “for failing to further limit the subject matter of a previous claim.” Final Action, p. 2. In actuality, the Examiner is rejecting claims **37** and **45** as violating the requirements of 35 U.S.C. § 112, ¶ 4, which requires that a dependent claim specify a further limitation of the subject matter of a previous claim.

The Examiner also rejects claims **37** and **45** under 35 U.S.C. § 112, ¶ 2, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Final Action, p. 3.

#### **7.7.1. Rejection Under 35 U.S.C. § 103(a)**

##### ***7.7.1.1. References do not teach all the limitations of the claim.***

#### **SEPARATE ARGUMENT OF PATENTABILITY**

Claims **37** and **45** contain the same limitation as that argued under subsection **7.3.1.1** for claim **15**, the claims are allowable for the same reasons as stated under subsection **7.3.1.1**.

There is no teaching or suggestion whatsoever in the cited portions of Mikurak of a “*time threshold*” or “*monitoring a status of the first order*,” as recited by claims **37** and **45**. Because

the Examiner fails to show that all the limitations of claims **37** and **45** are taught or suggested by Minton and Mikurak, he does not establish a *prima facie* case of obviousness.

**7.7.1.2. No evidence supporting a motivation to modify Minton with Mikurak.**

**SEPARATE ARGUMENT OF PATENTABILITY**

Claims **37** and **45** recite, respectively, an apparatus and an article of manufacture that perform, *inter alia*, the following steps:

... using a timer to measure a length of time that the first order is active within the market center; and  
receiving an indication that the length of time that the first order is active within the market center equals the time threshold.

Since claims **37** and **45** contain the same limitation as that argued under subsection **7.3.1** for claim **15**, the claims are allowable for the same reasons as stated under subsection **7.3.1**. Specifically, the Examiner admits that this limitation is not disclosed by the references of record, and the Examiner fails to provide any evidence supporting a motivation for modifying Minton with Mikurak. Thus, there is no *prima facie* case of obviousness for claims **37** and **45**.

**7.7.2. Failure to Comply with 35 U.S.C. § 112, ¶ 4**

**7.7.2.1. Referring to another claim does not, by itself, render a claim dependent.**

**SEPARATE ARGUMENT OF PATENTABILITY**

As discussed under subsection **7.6.3**, the Examiner provides no explanation, whatsoever, explaining his basis for considering claims **37** and **45** to be in non-compliance with 35 U.S.C. §

112, ¶ 4. As such, the Examiner already fails to meet his burden of making a *prima facie* case for failure to comply with Section 112, paragraph 4.

Applicants are forced to presume that the sole reason for rejecting claims **37** and **45** is because the claims refer to a preceding method claim. Final Action, p. 2. But the rejection is improper because the Examiner mischaracterizes the independent claims as dependent claims solely because the claims refer to another claim.

Thus, dependent claims **37** and **45** are allowable for the same reason as described under subsection 7.6.3 for independent claims **34** and **42** (the claims from which they depend).

Because referring to another claim is an acceptable claim construction, the Examiner fails to establish a *prima facie* case of failure to comply with 35 U.S.C. § 112, ¶ 4 or 37 C.F.R. § 1.75(c) for claims **37** and **45**.

### **7.7.3. Rejection Under 35 U.S.C. § 112, ¶ 2**

#### ***7.7.3.1. Referring to another claim does not, by itself, render a claim indefinite.***

#### **SEPARATE ARGUMENT OF PATENTABILITY**

Claims **37** and **45** were rejected under 35 U.S.C. § 112, ¶ 2 as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. Final Office Action, p. 3. The Examiner provides no explanation, whatsoever, explaining his basis for considering these claims to be indefinite. As such, the Examiner already fails to meet his burden of making a *prima facie* case of indefiniteness for claims **37** and **45**.

Applicants are force to presume that the Examiner's basis for rejecting claims **37** and **45** is due to the fact that claims **37** and **45** refer to a preceding method claim.

Similar to the claims in subsection 7.6.4, claims **37** and **45** are written in simplified form by *referring* to a method claim for the convenience of the Examiner and the public.

The language of claim **37** begins with “*the apparatus of claim 36*”—making it clear that claim **37** depends from claim **36**. Likewise, the language of claim **45** begins with “*the article of manufacture of claim 44*”—again, making it clear that claim **45** depends from claim **44**. The fact that each claim also refers to method claim **15** has no bearing, whatsoever, on its dependency.

Since referring to another claim does not, by itself, render a claim indefinite, the Examiner fails to establish a *prima facie* case of indefiniteness for claims **37** and **45**.

#### **7.8. Seventh Group: Dependent Claims 38 and 46**

The Examiner rejects claims **38** and **46** under 35 U.S.C. § 103(a) as being unpatentable over Minton in view of Mikurak. Final Action, pp. 7-8; 12.

The Examiner objects to claims **38** and **46** under 37 C.F.R. § 1.75(c) as being of improper dependent form “for failing to further limit the subject matter of a previous claim.” Final Action, p. 2. In actuality, the Examiner is rejecting claims **38** and **46** as violating the requirements of 35 U.S.C. § 112, ¶ 4, which requires that a dependent claim specify a further limitation of the subject matter of a previous claim.

The Examiner also rejects claims **38** and **46** under 35 U.S.C. § 112, ¶ 2, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Final Action, p. 3.

**7.8.1. Rejection Under 35 U.S.C. § 103(a)*****7.8.1.1. References do not teach all the limitations.*****SEPARATE ARGUMENT OF PATENTABILITY**

Claims **38** and **46** contain the same limitation as that argued above subsection **7.4.1.1** for claim **17**, the claims are allowable for the same reasons as stated under subsection **7.4.1.1**.

The Examiner fails to provide any arguments or evidence supporting a rationale for why a time stamp would teach or suggest a “*timer*.” A time stamp only records a second instance in time, whereas a “*timer*” measures the “*length of time*” – the two are not the same.

Because the Examiner fails to show that all the limitations of claims **38** and **46** are taught or suggested by Minton and Mikurak, he does not establish a *prima facie* case of obviousness.

**7.8.2. Failure to Comply with 35 U.S.C. § 112, ¶ 4*****7.8.2.1. Referring to another claim does not, by itself, render a claim dependent.*****SEPARATE ARGUMENT OF PATENTABILITY**

As discussed under subsection **7.6.3**, the Examiner provides no explanation, whatsoever, explaining his basis for considering claims **38** and **46** to be in non-compliance with 35 U.S.C. § 112, ¶ 4. As such, the Examiner already fails to meet his burden of making a *prima facie* case for failure to comply with Section 112, paragraph 4.

Applicants are forced to presume that the sole reason for rejecting claims **38** and **46** is because the claims refer to a preceding method claim. Final Action, p. 2. But the rejection is improper because the Examiner mischaracterizes the independent claims as dependent claims solely because the claims refer to another claim.

Thus, dependent claims **38** and **46** are allowable for the same reason as described under subsection **7.6.3** for independent claims **34** and **42** (the claims from which they depend).

Because referring to another claim is an acceptable claim construction, the Examiner fails to establish a *prima facie* case of failure to comply with 35 U.S.C. § 112, ¶ 4 or 37 C.F.R. § 1.75(c) for claims **38** and **46**.

### **7.8.3. Rejection Under 35 U.S.C. § 112, ¶ 2**

#### ***7.8.3.1. Referring to another claim does not, by itself, render a claim indefinite.***

#### **SEPARATE ARGUMENT OF PATENTABILITY**

Claims **38** and **46** were rejected under 35 U.S.C. § 112, ¶ 2 as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. Final Office Action, p. 3. The Examiner provides no explanation, whatsoever, explaining his basis for considering these claims to be indefinite. As such, the Examiner already fails to meet his burden of making a *prima facie* case of indefiniteness for claims **38** and **46**.

Applicants are force to presume that the Examiner's basis for rejecting claims **38** and **46** is due to the fact that claims **38** and **46** refer to a preceding method claim.

Similar to the claims in subsection **7.6.4**, claims **38** and **46** are written in simplified form by *referring* to a method claim for the convenience of the Examiner and the public. Since referring to another claim does not, by itself, render a claim indefinite, the Examiner fails to establish a *prima facie* case of indefiniteness for claims **38** and **46**.

**7.9. Eighth Group: Dependent Claims 39 and 47**

The Examiner rejects claims **39** and **47** under 35 U.S.C. § 103(a) as being unpatentable over Minton in view of Mikurak. Final Action, pp. 7-8; 12.

The Examiner objects to claims **39** and **47** under 37 C.F.R. § 1.75(c) as being of improper dependent form “for failing to further limit the subject matter of a previous claim.” Final Action, p. 2. In actuality, the Examiner is rejecting claims **39** and **47** as violating the requirements of 35 U.S.C. § 112, ¶ 4, which requires that a dependent claim specify a further limitation of the subject matter of a previous claim.

The Examiner also rejects claims **39** and **47** under 35 U.S.C. § 112, ¶ 2, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. Final Action, p. 3.

**7.9.1. Rejection Under 35 U.S.C. § 103(a)*****7.9.1.1. References do not teach all the limitations of the claim.*****SEPARATE ARGUMENT OF PATENTABILITY**

Claims **39** and **47** contain the same limitation as that argued above subsection **7.5.1.1** for claim **18**, thus the claims are allowable for the same reasons as stated under subsection **7.5.1.1**.

The Examiner fails to provide any arguments or evidence supporting a rationale for why a time stamp would teach or suggest a “*timer*.” A time stamp only records a second instance in time, whereas a “*timer*” measures the “*length of time*” – the two are not the same.

Because the Examiner fails to show that all the limitations of claims **39** and **47** are taught or suggested by Minton and Mikurak, he does not establish a *prima facie* case of obviousness.

**7.9.2. Failure to Comply with 35 U.S.C. § 112, ¶ 4*****7.9.2.1. Referring to another claim does not, by itself, render a claim dependent.*****SEPARATE ARGUMENT OF PATENTABILITY**

As discussed under subsection 7.6.3, the Examiner provides no explanation, whatsoever, explaining his basis for considering claims **39** and **47** to be in non-compliance with 35 U.S.C. § 112, ¶ 4. As such, the Examiner already fails to meet his burden of making a *prima facie* case for failure to comply with Section 112, paragraph 4.

Applicants are forced to presume that the sole reason for rejecting claims **39** and **47** is because the claims refer to a preceding method claim. Final Action, p. 2. But the rejection is improper because the Examiner mischaracterizes the independent claims as dependent claims solely because the claims refer to another claim.

Thus, dependent claims **39** and **47** are allowable for the same reason as described under subsection 7.6.3 for independent claims **39** and **47** (the claims from which they depend).

Because referring to another claim is an acceptable claim construction, the Examiner fails to establish a *prima facie* case of failure to comply with 35 U.S.C. § 112, ¶ 4 or 37 C.F.R. § 1.75(c) for claims **39** and **47**.

**7.9.3. Rejection Under 35 U.S.C. § 112, ¶ 2*****7.9.3.1. Referring to another claim does not, by itself, render a claim indefinite.*****SEPARATE ARGUMENT OF PATENTABILITY**

Claims **39** and **47** were rejected under 35 U.S.C. § 112, ¶ 2 as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as



the invention. Final Office Action, p. 3. The Examiner provides no explanation, whatsoever, explaining his basis for considering these claims to be indefinite. As such, the Examiner already fails to meet his burden of making a *prima facie* case of indefiniteness for claims **39** and **47**.

Applicants are force to presume that the Examiner's basis for rejecting claims **39** and **47** is due to the fact that claims **39** and **47** refer to a preceding method claim.

Similar to the claims in subsection 7.6.4, claims **39** and **47** are written in simplified form by *referring* to a method claim for the convenience of the Examiner and the public. Since referring to another claim does not, by itself, render a claim indefinite, the Examiner fails to establish a *prima facie* case of indefiniteness for claims **39** and **47**.

#### **7.10. Ninth Group: Dependent Claims 13, 14, 21 and 22**

The Examiner rejects claims **13, 14, 21** and **22** under 35 U.S.C. § 103(a) as being unpatentable over Minton in view of Mikurak. Final Action, pp. 3-6.

##### **7.10.1. Rejection Under 35 U.S.C. § 103(a)**

###### ***7.10.1.1. No evidence supporting a motivation to modify Minton with Mikurak.***

###### **SEPARATE ARGUMENT OF PATENTABILITY**

Since dependent claims **13, 14, 21** and **22** depend from independent claim **12**, they are allowable for at least the same reasons as stated under subsection 7.2.2 for claim **12**. Specifically, the Examiner's failure to provide any evidence supporting a motivation for modifying Minton with Mikurak results in a failure to establish a *prima facie* case of obviousness for claims **13, 14, 21** and **22**.

**7.11. Conclusion**

In view of the foregoing, Appellants submit that all of the pending claims are in proper condition for allowance, and the Board is respectfully requested to overturn the Examiner's rejection of these claims.

Respectfully submitted,

October 2, 2009  
Date

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**8. CLAIMS APPENDIX**

1-11. Cancelled.

12. (Previously Presented) A method comprising:

receiving information about a first order, in which the information includes:

at least one parameter of the first order;

an identity of a market center to which the first order is to be routed; and

an indication that the market center charges a transaction cost for orders that are processed after a length of time;

assigning a time threshold to the first order, in which the time threshold comprises the length of time of the market center less a pre-determined amount of time;

determining that the first order has not been processed before the time threshold;

transmitting an instruction to cancel the first order;

generating a second order, in which the second order comprises the at least one parameter of the first order; and

routing the second order to the market center.

13. (Previously Presented) The method of claim 12 further comprising:

calculating the time threshold of the first order.

14. (Previously Presented) The method of claim 12 further comprising:

monitoring a status of the first order to determine whether the first order has been processed by the market center.

15. (Previously Presented) The method of claim 14, in which the act of monitoring comprises:

using a timer to measure a length of time that the first order is active within the market center; and

receiving an indication that the length of time that the first order is active within the market center equals the time threshold.

16. Cancelled.

17. (Previously Presented) The method of claim 15, in which the timer begins measuring as soon as the first order is routed to the market center.

18. (Previously Presented) The method of claim 14, in which the act of monitoring is performed by a timer.

19-20. Cancelled.

21. (Previously Presented) The method of claim 12, in which the status of the first order comprises one of:

a pending state;

a filled state;

a cancelled state; and

a terminated state.

22. (Previously Presented) The method of claim 12 further comprising:

assigning an external identifier to the first order;

assigning an internal identifier to the first order.

23-33. Cancelled.

34. (Previously Presented) An apparatus of comprising:

a processor; and

a memory, in which the memory stores instructions which, when executed by the processor, direct the processor to perform the method of claim 12.

35. (Previously Presented) The apparatus of claim 34, in which the memory stores instructions which, when executed by the processor, direct the processor to perform the method of claim 13.

36. (Previously Presented) The apparatus of claim 34, in which the memory stores instructions which, when executed by the processor, direct the processor to perform the method of claim 14.

37. (Previously Presented) The apparatus of claim 36, in which the memory stores instructions which, when executed by the processor, direct the processor to perform the method of claim 15.

38. (Previously Presented) The apparatus of claim 37, in which the memory stores instructions which, when executed by the processor, direct the processor to perform the method of claim 17.

39. (Previously Presented) The apparatus of claim 36, in which the memory stores instructions which, when executed by the processor, direct the processor to perform the method of claim 15.

40. (Previously Presented) The apparatus of claim 34, in which the memory stores instructions which, when executed by the processor, direct the processor to perform the method of claim 21.

41. (Previously Presented) The apparatus of claim 34, in which the memory stores instructions which, when executed by the processor, direct the processor to perform the method of claim 22.

42. (Previously Presented) An article of manufacture comprising:  
a storage medium, in which the storage medium stores instructions which, when executed by a processor, direct the processor to perform the method of claim 12.

43. (Previously Presented) The article of manufacture of claim 42, in which the storage medium stores instructions which, when executed by the processor, direct the processor to perform the method of claim 13.

44. (Previously Presented) The article of manufacture of claim 42, in which the storage medium stores instructions which, when executed by the processor, direct the processor to perform the method of claim 14.

45. (Previously Presented) The article of manufacture of claim 44, in which the storage medium stores instructions which, when executed by the processor, direct the processor to perform the method of claim 15.

46. (Previously Presented) The article of manufacture of claim 45, in which the storage medium stores instructions which, when executed by the processor, direct the processor to perform the method of claim 17.

47. (Previously Presented) The apparatus of claim 44, in which the memory stores instructions which, when executed by the processor, direct the processor to perform the method of claim 18.

48. (Previously Presented) The apparatus of claim 42, in which the memory stores instructions which, when executed by the processor, direct the processor to perform the method of claim 21.

49. (Previously Presented) The apparatus of claim 42, in which the memory stores instructions which, when executed by the processor, direct the processor to perform the method of claim 22.



**9. EVIDENCE APPENDIX**

None.

**10.           RELATED PROCEEDINGS APPENDIX**

None.